Frank Davison's procedure on Oxidizing Bronze.

Steps explained in order of manipulation.

1:- Metal cleaned in solution of Nitric Acid.
A: Dried and cleaned by brush, if dried in sawdust.
2:- Objects deburred (emery cloth or equivilent).
3:- Object heavily sanded on back & front.
4:- Objects hung on suitable rods by small brass hooks about 2 inches long. Wires bent at right angles, hooks on one end smaller so medallion when hooked up in rows are in order, one after the other, facing in same direction, after being strung on suitable rod, before immersing them in oxidizing solution.
Note:- The solution shold be just hot enough so that steam can first be observed coming from the solution. Brush the sand out.
It is important to keep in mind that the slower oxidization takes place, the better it is. Therefore it is best to introduce into the water a few drops of the sulphur compound so that the water is just a light green color. It should be remembered that as the time progresses and more oxidization takes place, the solution now becomes weaker and should be kept up to the original strength. as it was in the beginning of the procedure.
After a time, depending on the volume of the solution, thexmxxal medal will turn from a brown chocolate color to a darker brown and then black.
The time to remove them is just when they are turning from the brown to the deeper brown or black. Incidentily, when the piecees are set up to drain, theyautomatically dry from the absorbedheat they have accumuleu.
Then they are placed in cold clear water.
5:- They are then ready to be machined buffed, with a very fine pumice powder in water.
A:-The buffing wheel should preferably be linen, about 2½ inches in diameter and over one inch wide at slow speed.
This is most desirable as this process should have more the action of wiping than buffing.
B:- After rubbing the pieces should be placed in a clean bowl with cold water.
Note:-A:-The idea of always placing the piece in cold water and clean water is that absolute cleanliness is imperative. If this should not be the case, decoloration from both heat or contaminated water will usually end in the decoloration of the piec and the necessity to dothe work over again.
B:-The rubbing should be done with some idea as to how the piece will lookwhen finished and therefore judgment and common sense, plus experience will be of great help.
(C)- If the piece had a great deal of intricate design on it, sometimes it is desirable to need small bristle brush, single row, about 2½ inches at slow speed, to get into the indenture a little more. However, this depends entirely on you judgment.
C:- After finishing up with the wiping, etc., place in cold clear water, the pieces are brushed lightly for the purpose of removing any possible sediment of pumice left on the piece.(A medium soft bristle brush is used).
D:-After this last washing the pieces are dried between warm clean, cotton towels and thenplaced in tins.(Also on oven).
Preferably in sulphur proof paper, especially if allowed to remain that way over night.
E:-They are now ready for a second light sanding-both sides, after sanding the pieces are placed in tins once again.
F:-

F:-The next step is to lightly rub with small linen buff.This time with bi-carbonate of soda in fine pumice powder to get the color. After this, the piece is washed and brushed in water(clear cold) and dried in clean towels once again.

(Brushed by dry bristle brush.)

They are now set up in XXXXX line. ready for laquering. The laquering is done by first placing the pieces on screens, slightly warming them in an oven so as to keep the dull finish after being laquered. Otherwise the pieces have a tendency to shine.

Frank Dawson's procedure on Oxidizing Bronze. Oxidizing
Explained in order of manipulation.

(1) Metal cleaned in solution of Nitric Acid
(a) dried + cleaned by brush if dried in sawdust.
(2) Objects deburred (emery cloth or equivalent.)
(3) Object heavily sanded on back + front.
(4) Objects hung on suitable rods by small brass hooks about 2 inches long. Wires bent at right angles, hooks on one end smaller so medallion when hooked up in rows are in order one after the other facing in same direction. After being hung on suitable rod before immersing them in oxidizing solution:

Note. — The solution should be just hot enough to so that steam can just be observed coming from the solution. It is important to keep in mind that the slower oxidization takes place the better it is, therefore it is best to introduce into the water a few drops of the sulfur compound so that the water is just a light green color. It should be remembered that as the time progresses + more oxidization takes place the solution now becomes weaker + should be kept up to the required strength as it was in the beginning of the procedure.

After a time, depending on the volume of the solution the medals will turn from a brown chocolate color to a darker brown + then black. The time to remove them is just when they are turning from the brown to the deeper brown or black. Gradually when the pieces are set up to drain they automatically dry from the absorbed heat they have accumulated. Then they are placed in cold clear water.

(5) They are then ready to be machine buffed with a very fine pumice powder in water.

(6) the buffing wheel should preferably be linen. about 2½ inches in diameter and run with work at slow speed.

This is most desirable as this process should have more the action of warping than by buffing.

(b) After rubbing the pieces should be placed in a clean bowl with the old water.

Note - (a) The idea of always placing the pieces in old water & clean water is that absolute cleanliness is important. If this should not be the case discoloration from both any heat or contaminated water will ~~eventually~~ usually end in the discoloration of the piece & the necessity to do the work over again.

(b) The rubbing should be done with some idea as to how the piece will look when finish & there for judgment a common sense plus experience will be of great help.

(c) If the piece had a great deal of intricate design on it sometimes it is desirable to use a small bristle brush, simple rouge about 2½ drams at slow speed to get into the undulations a little more. However this ~~is entirely~~ depends entirely on your judgment.

(c) After finishing up with the wiping etc; placed in cold clear water the pieces are brushed lightly for the purpose of removing any possible sediment & gummie left on the piece. A medium soft bristle brush is used.

(d) After this last washing the pieces are dried between warm clean, cotton towels & then placed in tins ~~before~~ also in oven. Preferably in sulpher proof paper & usually if allowed to remain that way over night.

(e) They are now ready for a second light sanding both sides After sanding the pieces are placed in tins once again.

(f) The next step is to lightly brush with a ~~simple~~ medium bristle brush, ~~at slow speed~~ by hand, this time ~~with pumice~~ & Bicarbonate of soda plus water.

After this the washing is repeated with hand brushes, the pieces set up for lacquering & It is best to warm up the objects in some way before lacquering as they do take the clear lacquer better & what is very important without a gummie. If not heated the always have a tendency to finish up with a thin surface.

(f) The next step is to lightly rub with small linen buff ~~[illegible]~~ this time with bicarbonate of soda in fine pumice powder to get the color.

After this the piece is washed & brushed in water (clear cold) and dried in clean towels once again. → Brushed by dry bristle brush.

They are now set up in line ready for laquering.

The laquering is done by first placing the pieces on screens, slightly warming them in an oven so as to keep the dull finish after being laquered. Otherwise the pieces have a tendency to shine.